DOCUMENT RESUME

ED 442 058 CG 030 202

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TITLE Electronic Delivery of Career Development University Courses.
PUB DATE 2000-00-00
NOTE 18p.; In: Cybercounseling and Cyberlearning: Strategies and Resources for the Millennium; see CG 030 191.
AVAILABLE FROM American Counseling Association, 5999 Stevenson Ave., Alexandria, VA 22304-3300 ($29.95). Also available through ERIC Clearinghouse on Counseling and Student Services, University of North Carolina at Greensboro, 201 Ferguson Building, P.O. Box 26171, Greensboro, NC 27402-6171; Tel: 800-414-9769 (Toll Free); Fax: 336-334-4116; e-mail: ericcass@uncg.edu; Web site: http://ericcass.uncg.edu.
PUB TYPE Reports - Descriptive (141)
EDRS PRICE EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS *Career Development; *Counselor Training; *Distance Education; *Higher Education; Internet; Research; Technology
IDENTIFIERS *Web Based Training

ABSTRACT

This chapter explores the use of Web-based instruction to teach career development courses to counseling students. First it describes both near-term and long-term possibilities for electronic syllabus development. Discussion of the near-term possibilities includes a brief overview of student areas and key instructor areas as well as course examples. Then the chapter examines how two recent studies on distance education may guide a prudent use of technology. The first study, "What's the Difference? A Review of Contemporary Research on the Effectiveness of Distance Learning in Higher Education," found that research: (1) tends to emphasize student outcomes for individual courses rather than for a total academic program; (2) does not take into account differences among students; (3) does not adequately explain why the dropout rates of distance learners are higher; (4) does not take into consideration how the different learning styles of students relate to the use of technology; (5) focuses mostly on the impact of individual technologies, rather than on the interaction of multiple technologies; (6) does not include a theoretical or conceptual framework; and (7) does not adequately address the effectiveness of digital libraries. The second study, "The Virtual University & Educational Opportunity," recommends placing access at the core of systems design; keeping the promise of technology in perspective; learning from the distance learning pioneers; taking action to narrow the digital divide; and monitoring progress toward equal access. (MKA)

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Electronic Delivery of Career Development University Courses

Marla Peterson

Dictionaries define prudent as "being wisely cautious in practical affairs" and "careful in providing for the future." Both of these phrases seem appropriate when discussing the use of electronic technology for delivering instruction on career development. Technological advances continue to make an array of instructional approaches possible, but many questions remain as to how prudent it is to use some of these technologies.

University course content must drive the technology. Once this is internalized, university faculty members and educational publishers will find ways to use appropriate technology that will enhance teaching-learning processes and materials. However, the flexible faculty member and the flexible publisher must also enter the electronic teaching world with a healthy amount of flexible skepticism. An oxymoron? No! It is simply being prudent. This should become more apparent as the findings of two recently released landmark reports on distance education are examined for implications that affect career development courses and materials.

Preservice counselor education programs usually include two courses on career development theory, research, information, and practice. Often theory and research are addressed in one course and career information and career counseling practices are included in another. As the World Wide Web burgeoned with sites devoted to career information and when many groups, including the Federal government, turned to the Internet for delivery of

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career-related information, it became apparent that the old didactic occupational information courses needed to be transformed into electronically enhanced career and educational information systems courses. Once electronic enhancement of face-to-face instruction occurs, it is tempting to move to the delivery of courses through distance education means.

Two landmark documents on distance education were issued in April 1999. One, *What's the Difference*?, was prepared for the American Federation of Teachers and the National Education Association by Phipps and Merisotis, staff members at the Institute for Higher Education Policy. The Phipps and Merisotis document focused on a review of contemporary research on the effectiveness of distance education in higher education. The second document, *The Virtual University and Educational Opportunity*, authored by Gladieux and Swail (1999) of the College Board, discussed issues of equity and access. Both documents have implications for counselor educators who are wrestling with the changing environment of electronically enhanced instruction.

How is distance education distinguished from electronically enhanced face-to-face instruction? Phipps and Merisotis cautioned that

> Because the technology is evolving, the definition of what distance learning is continues to change. Distance learning generally includes "synchronous communication," which occurs when teacher and student are present at the same time during instruction—even if they are in two different places—and "asynchronous communication," which occurs when students and teachers do not have person-to-person direct interaction at the same time or place. (1999, p. 11)

In this chapter, *distance education* refers to teaching/learning that takes place when the learner is at a distance from the originator of the teaching material. *Face-to-face instruction* is used to describe situations in which both students and instructors are present in the classroom. Both distance education and face-to-face approaches can be electronically enhanced by a variety of media: video conferencing, audio conferencing, videotapes, audiotapes,

television, telephone, computer software, fax, print, and the Internet. Courseware programs and WWW-based platforms such as those developed by eCollege.com (www.ecollege.com) and BlackBoard, Inc. (www.BlackBoard.com) enable faculty members to develop courses that can incorporate any of the aforementioned technologies.

This chapter describes both near-term and long-term possibilities for electronic syllabus development and then examines how the two recent studies on distance education may guide the prudent use of technology.

UNDERSTANDING THE NEAR-TERM POSSIBILITIES

The syllabus example presented in this section illustrates some of the instructional approaches that are possible when constructing a career development course syllabus with these new courseware programs. The syllabus example also sets the context for examining what role flexible skepticism and prudence might play in the use of technology. The example is based on the use by this chapter's author of the CourseInfo system published by BlackBoard, Inc. Five years ago when this chapter's author first designed an electronic syllabus, the syllabus consisted mainly of links to key WWW sites. With the advent of new authoring programs, the possibilities have expanded. (Readers who wish to view the syllabus that this chapter's author developed with CourseInfo may obtain permission by sending a request to peterson@utkux.utcc.utk.edu.)

When students enroll in the course that was developed, they see a page that includes the following navigation areas:

Announcements	Assignments
Course Information	Communication
Staff Information	External Links
Course Documents	Student Tools

The instructor has access to all of these areas and a control panel that is not accessible to the students. The instructor can elect to

activate, deactivate, and modify most of the student areas. The control panel includes a quiz generator, assessment tools, an on-line gradebook, and a course statistics field. To enable readers to think about what other possibilities might exist for using these courseware features in a career and educational information systems course, a brief overview of student areas and key instructor areas, along with course examples, follows.

Announcements

This area is used to display announcements, updates, and reminders. This area always appears when the student accesses the course. The instructor can use this area for items like reminding students to bring two disks to every class meeting, alerting the class that a state department of education representative will visit the class, and telling students she will be 10 minutes late so class members should proceed with an on-line assignment.

Course Information

This area is used to display general information about the course: course description from the graduate catalog; prerequisites; and times, locations, and information for lecture components. The lecture component can be expanded, for example, to include on-line activities and assignments that are linked to key WWW sites that support the content to be learned. In this course, a folder has been created for each class meeting. The contents of a folder for one class meeting are shown in Table 11-1 and include an activity/assignment that requires students to read key statements related to career development ethics, policies, and standards.

Staff Information

Specific information about staff or faculty who are involved with the course can be placed in this location. Possibilities to insert for personalizing the course include pictures of the instructor and any graduate assistants or staff who support the course, career development background of the instructor, certification and licensures, teaching philosophy, and hopes and expectations for the course.

Table 11-1
Sample Course Folder Contents

Course Title: Career and Education Information Systems
Meeting #2: Ethics/Policies/Standards

Links and Documents	Class Activities/Notes
NCDA Guidelines for Use of the Internet http://ncda.org/polweb.html	Complete appropriate section of worksheet that will be electronically activated in class.
NCDA Guidelines for the Preparation and Evaluation of Career and Occupational Information Literature http://ncda.org/polinfo.html	Complete appropriate section of worksheet that will be electronically activated in class.
NCDA Guidelines for the Preparation and Evaluation of Video Career Media http://ncda.org/polvideo.html	Complete appropriate section of worksheet that will be electronically activated in class.
NCDA Career Software Review Guidelines http://ncd.org/polsoft.html	Let's discuss.
NCDA Career Development Policy Statement http://ncda.org/polcd.html	Covers K-Adult.

continues

Table 11-1—*continued*

NOICC Career Development Competencies http://www.noicc.gov/	Covers K-Adult.
Career Development Domain of Tennessee School Counseling Program: A Framework for Action	Covers K–12. Copy can be found by clicking on "Course Documents."
Internet Acceptable Use Policies K–12 http://falcon.jmu.edu/~ramseyil/netpolicy.htm	See Assignment 1 below.

Assignment 1	Select one school district's Internet Use Policy Statement that you think is particularly good. Come to class prepared to discuss good points in the statement and points that might need to be added to cover use of Internet for career development purposes.
Assignment 2	Practice the Page Composer skills that you learned last week at the first class meeting.

Course Documents

This content-specific area is used for the majority of information that is to be delivered to the students on-line: course outlines, handouts, lecture materials, and related readings. In this course, the course outline and related links are located at the Course Infor-

mation location, and handouts only are placed at the Course Documents location. This demonstrates that the instructor has considerable latitude in determining what is included in each location. Handouts can be easily located, and there are no last-minute dashes to the copier. Handouts include examples of elementary school, middle school, high school, and adult career development activities that are WWW-based. All students must create similar activities, so they appreciate receiving examples of the instructor's expectations for their creative work.

Assignments

The assignments area is designed to hold course assignments, tests, and surveys. In this course, assignments are included in the folders created for each class meeting and placed at the Course Information location. Tests that are administered during class meetings are activated at this Assignments location at the time the test is to be administered. Instructors who choose primarily to use performance-based assignments might still find this site useful for the administration of a pretest to assess knowledge of career development WWW sites. In this course, a pretest in multiple-choice format is administered at the first class meeting. The test includes actual logos and other graphics from WWW sites such as America's Job Bank, NOICC, NCDA, and various college search systems. The students find this pretest format to be motivational. They want to log on to these sites and see what they contain. When students answer an item incorrectly, they are able to see the correct answer immediately. Viewing the correct answer is, however, at the option of the instructor. The instructor can also see detailed results that display each question and if the student got the question right or wrong, elect to give feedback or a remediation statement if an essay question format is used, permit students to complete practice exercises without recording a student name or grade, and permit the student to take the assessment many times without entering the grade in the gradebook.

Communications

Features at this area include e-mail, calendar, chat room, discussion board, and digital dropbox. Once students have registered for the course, the instructor can set up customized e-mail for all stu-

dents, all student groups, single students, and single/select groups. In this course, students sometimes work in teams to develop career development activities for various clusters of occupations. It is very simple to send electronic messages to every member of a group. Students find the calendar a useful place for locating assignment deadlines. If the instructor chooses, students can send written assignments via the digital dropbox. This tool is used to exchange files between a single student and the instructor. With the digital dropbox, students upload a file, such as the plan for a comprehensive career development program they prepared in a word processing format, and send it to the instructor. The instructor's dropbox includes a list of the transmitted files by student name, link name, file size, and date the file was sent. The features of chat rooms and discussion boards can be confusing. The synchronous nature of the chat room enables multiple users to participate at the same time, whereas with the asynchronous discussion board students do not have to be available at the same time to have a discussion. In this course, the chat room and discussion board are not yet fully exploited. Creative instructors might use these features to

Invite several employers to talk with the class regarding hiring practices.	Chat Room
Assign each student a WWW career development site to review and post a summary for all students to read.	Discussion Board
Pose a career counseling ethical dilemma and ask students to post responses that are supported by guidelines of appropriate professional associations.	Discussion Board
Ask students to examine the home of a major national corporation. Designate a time when students will discuss how this site might be used by students/ clients for an electronic field trip.	Chat Room

External Links

This area is used by instructors to provide links to key WWW sites. In this course, the instructor places three categories of WWW site links at this location: professional associations/career development groups (American Counseling Association, American School Counselor Association, National Career Development Association, and National Occupational Information Coordinating Committee); on-line assistance for development of home pages; and examples of home pages developed in previous semesters. The technology has now become so easy to use that every student is required to develop a career development home page for a target group of choice. The home pages are premiered at a "Night of Stars." Students are highly motivated to do a good job because they know they can elect to load their work on the Internet. The instructor links their work to the course syllabus that will be used in subsequent semesters. The home page development assignment is a very practical one, which has resulted in development of home pages for area schools and agencies and the Dual Career Office, the College of Arts and Science Advising Center, and the Upward Bound Program at the University of Tennessee.

Student Tools

This area is used by students to access a series of tools that they can use to do things like check grades and manage the student home page. The use of this feature is highly dependent upon the type of grading practices used by the instructor.

UNDERSTANDING THE LONG-TERM POSSIBILITIES

Technological advances have greatly simplified the procedures that are used to author electronic syllabi and have created avenues for new instructional methodologies. The components of the electronic syllabus discussed in the preceding section are representative of current technological developments that can enhance instruction. But how will electronic instruction be affected by future technological developments?

One thing is fairly certain. What is written today about the use of technology may need to be modified in 6 months. Counselor educators who develop an electronic syllabus can be in a continuous

mode of transitioning from one format to another if they wish to take advantage of new capabilities that become available. It has been the experience of this chapter's author that each time an electronic syllabus has been modified the steps and processes for doing so have become easier. *With instructors having to spend less time on learning the technology, in the future they must place more emphasis on the quality of the content and the appropriate mix of technology mediums, instructional techniques, and instructors.* Richard Lewis, interim president of the United States Open University, a new sister institution of the British Open University (www.open.ac.uk), has indicated that the United States is not very good at distance education. "They get hooked on one model as the answer. First it was television. Now it's the Net" (Blumenstyk, 1999, p. A36).

In addition to determining the appropriate mix of technology mediums and techniques, there is another type of mix that is possible: a mix of instructors. Career development courses of the future might well include combinations of university-based instructors from multiple institutions and practitioners, particularly those who use and have developed WWW sites. University courses may include links to and mixes of portions of other courses. For example, those who prepare elementary teachers might link to that portion of a career development course that deals with elementary students. The long-advocated integration and infusion of career development concepts into the total school curriculum might have a greater chance of taking place.

A development that needs to be monitored closely is on-line access to software. Colleges, universities, and schools are already accustomed to purchasing site licenses for software that can be loaded on their servers and thus are available to a number of faculty members. In the future, institutions may be paying fees to applications service providers who will make a variety of software available on the WWW. It is now possible, for example, to run PC programs such as Corel's WordPerfect and Microsoft Office on Internet servers instead of personal computers. Already, some companies have "developed technologies that allow simple terminals, old PCs and Apple Computer Inc.'s Macintosh systems to tap into PC programs over the Internet or corporate networks, ending the need for

companies or other organizations to run desktop software or upgrade machines" (Clark, 1999, p. A6). If machine upgrades become less necessary, this could have a significant impact on increasing the number of classrooms in which electronically enhanced instruction can take place.

It is well known that the WWW shatters geographic barriers. It is technically possible to develop an electronic syllabus for a career and educational information systems course and offer the course anywhere in the world via the Internet. There are problems with the quality of video material, but these problems will eventually be overcome. Beyond questions associated with technical considerations are those associated with whether it is prudent for colleges and universities to invest resources in technology, reduce the number of faculty members needed to teach courses, and reduce counselor education programs by forming distance education consortia. For some fascinating viewpoints on how on-line courses can change the role of faculty, consult *Digital Diploma Mills: The Automation of Higher Education* by David F. Noble (1999). He warned that university administrators may be using technology to discipline, deskill, and displace labor.

BEING PRUDENT: GUIDANCE FROM TWO STUDIES

Certainly counselor educators are receiving guidance from within the profession as they determine how technology can be used to enhance the preparation of counselors. However, sometimes it is also helpful to examine statements from other disciplines. Findings and recommendations from two April 1999 studies on distance education can be instructive. What these findings and recommendations might mean for electronically enhanced career development courses is explored in this section.

Findings From *What's the Difference? A Review of Contemporary Research on the Effectiveness of Distance Learning in Higher Education* (Phipps & Merisotis, 1999), With Implications for Career Development Courses

Finding: **Research has tended to emphasize student outcomes for individual courses rather than for a total academic program.** *Implications:* Career development courses that

feature didactic rather than clinical instruction have been the first to be electronically enhanced. As other counselor education didactic courses make use of interactive technology, and if clinical instruction is added to this mix, ways must be found to assess the performance of practicing counselors who are graduates of programs in which they have been prepared by a cluster of electronic courses.

The Council for the Accreditation of Counseling and Related Education Programs (CACREP) should monitor progress of the Federal Government distance education demonstration effort that began in 1999 and that may involve as many as 50 institutions over a period of 3 years. The purpose of the demonstration is to help determine (a) the most effective technologies for delivering quality education via distance course offerings, (b) statutory and regulatory requirements that should be altered to provide greater access to high-quality distance education, and (c) appropriate federal assistance for students enrolled in distance education. To what extent will the demonstration involve courses for counselors? To what extent will both program and course evaluations be conducted?

Finding: **Research does not take into account differences among students.** *Implications:* Career development theory and content have long recognized that individuals differ in their interests, values, skills, and abilities. Much research remains to be done on preferred ways of acquiring career information and on career information processing patterns.

Finding: **Research does not adequately explain why the dropout rates of distance learners are higher.** *Implications:* Counselor educators must be clearly cognizant of this fact if and when well-intentioned individuals make suggestions to collapse certain counselor education courses and even entire programs into a distance education consortia configuration. It may well be, however, that career and educational information courses could serve as a fertile ground for experimenting with formats that will decrease dropout rates. If a career development course offered via distance education was constructed as a personal information journey, it could be a source of data on whether a course that focuses on personal meaning has higher retention rates than courses that do not use such an approach.

Finding: **Research does not take into consideration how the different learning styles of students relate to the use of particular technologies, and research focuses mostly on the impact of individual technologies, rather than on the interaction of multiple technologies.** *Implications:* The newest WWW-based courseware programs feature multiple technologies. Increasingly, it will be a question of which technology is the best for particular content for a particular learner. The courses offered by the British Open University (www.open.ac.uk) often include a mix of media and materials and are expensive to produce. One course was designed by a 40-person course team and will be among the first seven offered in the United States. The materials for this course "include four books, several study guides, five specially produced half-hour television shows, and a set of audiotapes" (Blumenstyk, 1999, p. A 36). A support system of approximately 7,000 tutors provides face-to-face tutorials, but some tutors "rely heavily on e-mail and telephone to reach students, especially if face-to-face meetings are impractical" (Blumenstyk, 1999, p. A37). Of the more than 300 courses developed by the Open University, only 6 are designed to be completely Internet based, and these are primarily in the area of computing and information technology.

Finding: **Research does not include a theoretical or conceptual framework.** *Implications:* It is the theoretical or conceptual framework for distance education research that is under discussion here. The preparation of career counselors requires both didactic and clinical instruction. It is in the clinical arena that those who prepare counselors can make a major contribution in building research models. For example, do research designs adequately address whether didactic instruction learned through electronically enhanced means contributes to building better clinical skills?

Finding: **Research does not adequately address the effectiveness of digital "libraries."** *Implications:* This finding relates to several concerns that are also being addressed by ACA, NCDA, ACES, and ASCA. The WWW is a very open system with no quality control in terms of what types of career information and career development sites are constructed. Many sites are developed by self-proclaimed career development experts with little background

in career development theory or experience in working with the target audience for which the site was developed. Some responsibility rests with federal and state government offices that have awarded money for the development of such sites. Counselor educators who develop electronic syllabi should include links to sites that represent the highest ethical and content standards of the profession. They should not be reticent to point out shortcomings of sites that are not based on sound career development theory and that do not reveal the credentials of the site owner/developer.

There are thousands of career information sites on the WWW. Notable gains have been made in cataloging and organizing adult career development sites. There is still a great deal of work to be done in organizing sites by other age/developmental levels.

The corporate world could make a major contribution toward advancing the quality of digital library career information for elementary, middle, and high school students if they teamed with career development professionals to build career development awareness and exploration activities on their home pages. Some have already done so, but in the absence of such activities, counselors can create them.

Recommendations From *The Virtual University & Educational Opportunity* (Gladieux & Swail, 1999), With Implications for Career Development Courses

Recommendation: **Place access at the core of systems design.** *Implications:* A system must take into consideration both human and material resources. The Gladieux and Swail study reported that a "digital divide" is being created in that the distribution of computers is "highly stratified by socioeconomic class" (p. 17) and that there are wide disparities in access to computers by income, race/ethnicity, and educational attainment. The digital divide grows even greater if counselors do not have access to equipment and the skills to help clients access job openings, college admissions, financial aid, and other types of career and educational information. New counselor education graduates and experienced counselors who do not receive such preparation are at a serious disadvantage. Further, they may place their clients at a serious disadvantage. Perhaps there is a digital divide in the preparation of

counselors. Some university counselor education programs may have far greater access to computing resources than others.

Recommendation: **Keep the promise of technology in perspective.** *Implications:* Technology can assist in locating career and educational information, but clients must act on the information. Although technology can help prompt actions, it often takes face-to-face human interaction to help clients sort information, rehearse actions, and follow through to achieve personal goals. High dropout rates in distance education courses point to the fact that there is much work to be done in terms of finding techniques to retain students in such courses and of determining the proper mix of face-to-face and remote instruction.

Recommendation: **Learn from the distance-learning pioneers.** *Implications:* Faculty members at universities like Virginia Tech where a distance education career development course is being offered and the University of Tennessee where the first WWW-enhanced career development course was developed can provide valuable insights in terms of designing instructional activities that seem to work in graduate courses. British Open University personnel have valuable information to share in terms of emphasis that is placed on team approaches to course development, course development costs, and the proper mix of face-to-face versus remote instruction.

Recommendation: **Take action to narrow the digital divide.** *Implications:* The digital divide between trained and untrained counselors should be a particular focus of university counselor educators. Here are some straightforward suggestions: Support counselor educator colleagues who want to learn new technologies. Convert occupational/career information courses to WWW-based courses. Advocate for access to computer classrooms; teacher educators need access to computer classrooms and so do counselor educators. Ask counselor education interns to assist practicing counselors in learning how to use the WWW.

Recommendation: **Monitor progress toward equal access.** *Implications.* Technology gives learners more control over where, when, and how they learn—but who will have that control? In a time when 40% of classrooms in schools with the highest concentration of poor students (measured by percentage of students eligi-

ble for free or reduced-price lunch) have Internet access, compared to more than 60% of classrooms in schools with the lowest concentration of poor students (U.S. Department of Education, 1999), and when half the schools that are connected to the Internet are connected only at the library/media center or principal's office (Quality Education Data, 1998), counselors must become advocates for equal access to technology. Counselors work with all students, and they are in a position to make strong arguments as to why they need technology to help students enter further education and employment settings. It seems reasonable, then, that counselor educators who prepare individuals who work with all students must advocate for access to computing resources that support instruction.

CONCLUSION

There is little doubt that advances in technology have opened many new possibilities for delivering instruction. Even though the content of courses that deal with career and educational information seems to be a natural fit for electronically enhanced instruction, those who prepare counselors need to be aware that there is a lack of quality research on the effectiveness of distance education, and that technology is creating a digital divide.

Can counselor educators stand back and wait for the research evidence to accrue? Professional judgment based on the ethical considerations and the standards of the profession will guide decisions as to what content will be delivered by what means. In making those judgment calls, counselor educators can take partial comfort in the fact that technology opens the doors for learners to tell us how they learn best. When students drop out of distance education courses at high rates, it may be that they are saying that they want technology to complement but not supplant face-to-face interaction with instructors. It may also reflect that not enough time has been spent in designing and authoring material contained in the course.

Can counselor educators stand back and wait for adequate access to become available? Counselor educators and counselors must help students and clients learn how to negotiate the career information digital world.

This chapter concludes where it began: Be wisely cautious in practical affairs. Be careful in providing for the future. Be prudent.

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